

Remarks

Examiner Pompey is thanked for the thorough Office Action.

The claims have not been further amended.

Claim Rejections

The Rejection Of Claims 1 And 4 Under 35 U.S.C. §102(b) As Anticipated By Liu et al.  
(U.S. Patent No. 5,739,063)

The rejection of claims 1 and 4 under 35 U.S.C. §102(b) as anticipated by Liu et al. (U.S. Patent No. 5,739,063) (the '063 Liu Patent) is acknowledged.

Applicants' respectively disagree with this rejection. Inter alia, independent claim 1 includes the limitation of "oxidizing the silicon semiconductor substrate locally at a first oxidation temperature of at least above 1100 degrees centigrade through the silicon nitride mask pattern...". The '063 Liu Patent does not disclose this limitation of oxidizing *through a silicon nitride mask*. Therefore, this language of independent claim 1 distinguishes over Liu under §102(b). Since claim 4 depends from claim 1 and includes further limitations, claim 4 also distinguishes over Liu under §102(b).

**The Rejection Of Claims 1, 3 To 6 And 8 To 10 Under 35 U.S.C. §103(a) as Being Unpatentable Over Higashitani et al. (U.S. Patent No. 5,637,528) In View Of Wolf (Silicon Processing for the VLSI Era, Vol. 1, pp. 209 and 210**

The rejection of claims 1, 3 to 6 and 8 to 10 under 35 U.S.C. §103(a) as being unpatentable over Higashitani et al. (U.S. Patent No. 5,637,528) (the '528 Higashitani Patent) in view of Wolf (Silicon Processing for the VLSI Era, Vol. 1, pp. 209 and 210 (the Wolf Article) is acknowledged.

Applicants' respectively disagree with this rejection. Inter alia, independent claims 1 and (6) includes the limitation of "oxidizing the silicon (semiconductor) substrate locally at a first (oxidation) temperature of at least above 1100 degrees centigrade through the (patterned) silicon nitride mask pattern...". The '528 Higashitani Patent does not disclose this limitation of oxidizing at a first oxidation temperature of at least above 1100 degrees. Instead, Higashitani discloses at Col. 5, lines 7 to 10, a "first oxidation [that] includes front stage oxidation at 1000°C, middle stage while the temperature is raised and stabilized, and back stage oxidation at 1125°C."

Applicants' urge that the Examiner misunderstood the Wolf Article in that Wolf does not disclose a two step process of oxidizing a silicon substrate to form silicon oxide layers so that after oxidizing a silicon substrate at a first temperature of at least above 1100°C, Wolf discloses *then* "oxidizing the substrate further at a second temperature no greater than 1100 degrees centigrade (pg. 209-10, section-titled growth of thin oxides." Instant Office Action, page 2, lines 21 and 22. Instead, Wolf discloses

that thin oxide layers ( $\leq 400\text{\AA}$ ) have been *completely* grown (1) in the temperature range of 780-980°C (the 'Irene method') or (2) in the temperature range of 900-1000°C (the 'Adams method'). The Irene and Adams methods disclosed by Wolf are one step oxidizing methods. There is no teaching in Wolf that either the Irene or the Adams' methods are two step methods, or are the second step of a two step method.

Independent claims 1 and 6 therefore distinguish over the '528 Higashitani Patent in view of the Wolf Article under §103(a) for the above reasoning and further because: the prior art lack a suggestion that the reference should be modified in a manner required to meet the claims; the Examiner misunderstood the references; the Examiner has made a strained interpretation of the reference that could be made only be hindsight; the Examiner has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including its differences over the prior art, would have been obvious; the prior art references do not contain any suggestions (express or implied) that they be combined, or that they be combined in the manner suggested; the references teach away; the Examiner has cited an inoperative combination; and modification is necessary to meet the instant claims.

Claims 3 to 5 depend from independent claim 1; and claims 8 to 10 depend from independent claim 6; and are believed to distinguish over the combination for the reasons previously cited.

Therefore claims 1, 3 to 6 and 8 to 10 are submitted to be allowable over the cited references and reconsideration and allowance are respectfully solicited.

CONCLUSION

In conclusion, reconsideration and withdrawal of the rejections are respectively requested. Allowance of all claims is requested. Issuance of the application is requested.

It is requested that the Examiner telephone Stephen G. Stanton, Esq. (#35,690) at (610) 296 - 5194 or the undersigned attorney /George Saile, Esq. (#19,572) at (845) 452 - 5863 if the Examiner has any questions or issues that may be resolved to expedite prosecution and place this Application in condition for Allowance.

Respectively submitted,

A handwritten signature in black ink, appearing to be 'SBA', written over a horizontal line.

Stephen B. Ackerman

Reg. No. 37,761